

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims 70, 72-84, and 90-97, as follows:

Listing of Claims:

1-69. (Cancelled)

70. (Currently Amended) A planarizing apparatus for planarization of microelectronic-device substrate assemblies, comprising:

a table for carrying a polishing pad;

a carrier assembly having a carrier head configured to hold a substrate assembly, the carrier head being movable to press the substrate assembly against the polishing pad, and at least one of the carrier head and the table being translatable with respect to the other to translate the substrate assembly across the polishing pad;

a slurry manufacturing assembly including a first feed line for containing a flow of a first solution having a plurality of first abrasive particles, a second feed line for containing a separate flow of a second solution having a plurality of second abrasive particles ~~of a different type than the first abrasive particles~~, a first removal unit coupled to the first feed line, the first removal unit configured to selectively remove a first type of selected abrasive particles from the first abrasive particles, and a combination feed line ~~operatively coupled to in fluid communication with the first removal unit to receive a filtered flow of the first solution from the first removal unit~~, the combination feed line further being in fluid communication with the second feed line to receive a flow of the second solution from the second feed line that is separate from the filtered flow of the first solution ~~for containing a flow of an abrasive slurry after removing the first type of selected abrasive particles from the first solution, the abrasive slurry comprising the first and second solutions including the first and second abrasive particles;~~ and

a slurry dispenser coupled to the combination line to dispense ~~the an~~ an abrasive slurry comprising the first and second solutions, the dispenser being positionable over the table to dispense the slurry from the combination line onto the planarizing pad.

71. (Original) The planarizing apparatus of claim 70 wherein the first removal unit comprises a first filtration unit.

72. (Currently Amended) The planarizing apparatus of claim 71 wherein the first filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 1.0 μm .

73. (Currently Amended) The planarizing apparatus of claim 70, further comprising a second removal unit coupled to the second feed line to receive the flow of second solution from the second feed line, the second removal unit configured to selectively remove a second type of selected abrasive particles from the second abrasive particles, and wherein the combination feed line further being in fluid communication with the second removal unit to receive a filtered flow of the second solution ~~is coupled to the second removal unit to contain a flow of the abrasive slurry after removing the first and second types of selected abrasive particles from the first and second solutions.~~

74. (Currently Amended) The planarizing apparatus of claim 73 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.3 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.05 μm .

75. (Currently Amended) The planarizing apparatus of claim 70 wherein the first removal unit comprises a first filtration unit ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.8 μm .

76. (Currently Amended) The planarizing apparatus of claim 70 wherein the first removal unit comprises a first filtration unit ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.3 μm .

77. (Currently Amended) The planarizing apparatus of claim 73 wherein the second removal unit comprises a first filtration unit ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.15 μm .

78. (Currently Amended) The planarizing apparatus of claim 73 wherein the second removal unit comprises a first filtration unit ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.05 μm .

79. (Currently Amended) The planarizing apparatus of claim 74 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 1.0 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having particle size greater than approximately 0.05 μm .

80. (Currently Amended) The planarizing apparatus of claim 74 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 1.0 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having particle size greater than approximately 0.15 μm .

81. (Currently Amended) The planarizing apparatus of claim 74 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.8 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having particle size greater than approximately 0.05 μm .

82. (Currently Amended) The planarizing apparatus of claim 74 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having a particle size greater than approximately 0.8 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove abrasive particles having particle size greater than approximately 0.15 μm .

83. (Currently Amended) The planarizing apparatus of claim 74 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 0.3 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.05 μm .

84. (Currently Amended) The planarizing apparatus of claim 74 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 0.3 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.15 μm .

85. (Previously Presented) The planarizing apparatus of claim 70 further
comprising a mixing unit configured to mix the combined flow of the first and second solutions.

86. (Previously Presented) The planarizing apparatus of claim 70 further
comprising a conduit through which the combined flow of the first and second solutions is
passed to provide a turbulent zone for mixing the combined flow.

87. (Previously Presented) The planarizing apparatus of claim 70 further
comprising a volume control unit configured to mix 1-99% by volume of the first filtered
solution with 1-99% by volume of the second solution..

88. (Previously Presented) The planarizing apparatus of claim 87 wherein the
volume control unit is configured to alter a mix ratio of the first filtered solution and the second
solution during a single polishing cycle.

89. (Previously Presented) The planarizing apparatus of claim 88 wherein the
volume control unit is configured to change from a first mix ratio of the first filtered solution and
the second solution to a second mix ratio of the first filtered solution and the second solution.

90. (Currently Amended) A planarizing apparatus for planarization of microelectronic-device substrate assemblies, comprising:

a table for carrying a polishing pad;

a carrier assembly having a carrier head configured to hold a substrate assembly, the carrier head being movable to press the substrate assembly against the polishing pad, and at least one of the carrier head and the table being translatable with respect to the other to translate the substrate assembly across the polishing pad;

a slurry manufacturing assembly including a first feed line for containing a flow of a first solution having a plurality of first abrasive particles, a second feed line for containing a separate flow of a second solution having a plurality of second abrasive particles ~~of a different type than the first abrasive particles~~, a first removal unit coupled to the first feed line, the first removal unit configured to selectively remove a first type of selected abrasive particles from the first abrasive particles, and a combination feed line ~~operatively coupled to~~ in fluid communication with the first removal unit to receive a filtered flow of the first solution from the first removal unit, the combination feed line further being in fluid communication with the second feed line to receive a flow of the second solution from the second feed line that is separate from the filtered flow of the first solution ~~for containing a flow of an abrasive slurry after removing the first type of selected abrasive particles from the first solution, the abrasive slurry comprising the first and second solutions including the first and second abrasive particles;~~

at least one of a mixer configured to mix ~~the~~ a combined flow of the first and second solutions received from the combination feed line and a conduit through which the combined flow is passed to form a turbulent zone; and

a slurry dispenser coupled to the combination line to dispense the combined flow ~~abrasive slurry~~, the dispenser being positionable over the table to dispense the slurry from the combination line onto the planarizing pad.

91. (Currently Amended) The system of claim 90, further comprising a second removal unit coupled to the second feed line to receive the flow of second solution from the second feed line, the second removal unit configured to selectively remove a second type of selected abrasive particles from the second abrasive particles, and wherein the combination feed line further being in fluid communication with the second removal unit to receive a filtered flow of the second solution ~~is coupled to the second removal unit to contain a flow of the abrasive~~

~~slurry after removing the first and second types of selected abrasive particles from the first and second solutions.~~

92. (Currently Amended) The planarizing apparatus of claim 91 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 0.3 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.05 μm .

93. (Currently Amended) The planarizing apparatus of claim 92 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 1.0 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.05 μm .

94. (Currently Amended) The planarizing apparatus of claim 92 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 1.0 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.15 μm .

95. (Currently Amended) The planarizing apparatus of claim 92 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 0.8 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.05 μm .

96. (Currently Amended) The planarizing apparatus of claim 92 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 0.8 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.15 μm .

97. (Currently Amended) The planarizing apparatus of claim 92 wherein:
the first filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having a particle size greater than approximately 0.3 μm ; and
the second filtration unit comprises a filter ~~that removes~~ configured to remove
abrasive particles having particle size greater than approximately 0.15 μm .

98. (Previously Presented) The planarizing apparatus of claim 90 further
comprising a volume control unit configured to mix 1-99% by volume of the first filtered
solution with 1-99% by volume of the second solution.

99. (Previously Presented) The planarizing apparatus of claim 98 wherein the
volume control unit is configured to alter a mix ratio of the first filtered solution and the second
solution during a single polishing cycle.

100. (Previously Presented) The planarizing apparatus of claim 99 wherein the
volume control unit is configured to change from a first mix ratio of the first filtered solution and
the second solution to a second mix ratio of the first filtered solution and the second solution.